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Williamson, D. L.: A Mössbauer and Weight-Loss Study of a Lithium Corroded Austenitic Stainless Steel ..... *2*(4) 34–36
Wren, J. E.: Ignition and Combustion of Ferrous Metals in High Pressure, High Velocity, Gaseous Oxygen ..... *1*(1) 61–76
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Wright, I. G.: Observations of the Low-Temperature (400 to 910 °F) Corrosion/Erosion Behavior of Selected Alloys in an Atmospheric Pressure Fluidized-Bed Coal Combustor ..... *2*(3) 33–48

Yamanaka, M.: Oxidation and Hot-Corrosion Resistant High Aluminum Austenitic Stainless Steel ..... *2*(2) 21–29
Yamazaki, T.: Oxidation and Hot-Corrosion Resistant High Aluminum Austenitic Stainless Steel ..... *2*(2) 21–29
Yamazaki, Y.: Development of NK-HIWEL Steels Suitable for High-Heat-Input Welding ..... *6*(1) 14–23
Yanai, H.: Properties of Thick 5083-0 Aluminum Alloy Plates for the Equatorial Ring of a Spherical LNG Cargo Tank ..... *6*(4) 273–278
Yonco, R. M.: Compatibility of Fe-Cr-Mo Alloys with Static Lithium ..... *2*(4) 5–15
Yoshikawa, K.: Experience of High Chromium Ferritic Steel Tubes in Power Plant ..... *4*(2) 99–109
Yukitoshi, T.: Experience of High Chromium Ferritic Steel Tubes in Power Plant ..... *4*(2) 99–109
Yuyama, S.: Fundamental Aspects of AE Monitoring on Corrosion Fatigue Processes in Austenitic Stainless Steel ..... *5*(4) 212–221

Zackay, V. F.: Design of Steels for Coal Gasification Pressure Vessels, The ..... *1*(1) 77–92
Zaizen, T.: Oxidation and Hot-Corrosion Resistant High Aluminum Austenitic Stainless Steel ..... *2*(2) 21–29
Zaplatynsky, I.: Thermal Barrier Coatings: Burn Rig Hot Corrosion Test Results ..... *1*(4) 47–58